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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,749	04/15/2004	Hans-Jurgen Achtzehn	MOH-P030006	8510
24131	7590	09/12/2005	EXAMINER	
LERNER AND GREENBERG, PA P O BOX 2480 HOLLYWOOD, FL 33022-2480			ROGERS, DAVID A	
			ART UNIT	PAPER NUMBER
			2856	

DATE MAILED: 09/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.D

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/825,749	ACHTZEHN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	David A. Rogers	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 April 2004.
- 2a) ☐ This action is **FINAL**.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12 and 13 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \*    c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 20040415, 20041221.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Request for Information***

1. In accordance with 37 CFR 1.105(a)(1) the applicant is requested to provide information known regarding a SUSI remote controlled vehicle from Framatome ANP GmbH. The applicant admits that their apparatus is based on this known remote-controlled vehicle. See the applicant's specification on page 7, lines 14-18.

This request is based on the above information/knowledge and is deemed to be reasonably pertinent to the patentability of the claims in the instant application. The applicant has not provided this information on an Information Disclosure Statement.

A complete response to this office action shall include both a response to the above request and a response to all other issues raised in this office action. The applicant's response to this request shall coincide with the response to this office action. Extensions of time may be available under the provision of 37 CFR 1.136(a).

### ***Specification***

2. The disclosure is objected to because of the following informalities.

a. On page 8, line 6 replace "in the figure" with --in figure 1-- in order to refer to the specific drawing.

b. On page 9, line 5 replace "figure" with --figures-- since none of the figures show the sliprings.

Appropriate correction is required.

***Drawings***

3. The drawings are objected to because the use of shading makes the individual features of the applicant's invention unclear. Furthermore, the applicant is requested to provide a revised figure 4 that better shows the apparatus, the reactor walls, the screws, and also comprises the text labels for the key components.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 9 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Japanese Laid Open Patent Application Publication 2000-338291-A to Masuo.

Masuo discloses a device for inspecting submerged plant parts comprising a remotely-controlled vehicle (reference item 9). The vehicle has an end-face member (reference item 49) with a central axis perpendicular to the end face. The vehicle has a carrier (reference item 18) that can pivot exclusively about an axis that is parallel with the central axis. The vehicle also has a holding device (reference item 56) for an ultrasonic inspection tool (reference item 28).

With regard to claims 2 and 3 the apparatus of Masuo is configured for ultrasonic inspection of screws (bolts) (reference item 30) in a submerged region of a nuclear reactor. The applicant's claimed location of the screws (in a core baffle) is not given any patentable weight since the apparatus of Masuo anticipates the claims. See *In re Schreiber*, 128 F.3d 1473, 44 USPQ2d 1429 (Fed. Cir. 1997).

With regard to claim 9 the apparatus of Masuo comprises a plurality of support elements on the carrier that are disposed in a circumferential direction. Referring to figure 4 of Masuo the central pivot axis is located at the center pivot

(reference item 44). The rigid member (reference item 43) must inherently be formed of two members that are joined (hinged) at the center pivot (reference item 44) and at their respective distal pivot points (reference items 41 and 42).

6. Claims 1 and 5-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by United States Patent 4,196,049 to Burns *et al.*

Burns *et al.* discloses a remotely controlled apparatus for inspecting plant parts that are submerged. The apparatus has a housing (reference item 160) with an end face with a central axis (B-axis). A carrier (reference item 40) is pivotally mounted to the end face and will rotate about a second axis (E-axis). When a support bracket (reference item 180) is in a vertical position and motor housing (reference item 192) is in a horizontal position then the E-axis will be offset from the B-axis by a predetermined amount. The carrier has a plurality of holders (reference item 250, for example) that are spaced a distance from the E-axis.

With regard to claims 7 and 8 the rotation about the B- and E-axes will inherently be coordinated for inspection of the reactor.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuo as applied to claim 1, and further in view of United States Patent 5,959,211 to Wagner *et al.*

Masuo teaches an inspection tool comprising a carrier. Attached to the carrier is a motor (reference item 19). The carrier also supports an expandable frame, as seen in figure 4, and a second motor (reference item 24). Masuo does not teach a counterweight.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device of Masuo to include a counterweight. Counterweight balancing is a well-known concept. Adding a counterweight to the carrier, such as on its upper surface opposite the first motor (reference item 19) would have been obvious in order to reduce the torque on the shaft (reference item 20) by the carrier due to the motors and the expanded frame. The reduced torque will extend the life of the gearing used to rotate the carrier about its pivot axis.

9. Claims 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masuo as applied to claim 1, and further in view of United States Patent 5,959,211 to Wagner *et al.*

Masuo teaches a device for inspecting submerged plant parts comprising a remotely-controlled vehicle and an ultrasonic inspection tool. The tool is mounted to the apparatus via a holder. Masuo does not teach a universal joint for mounting the sensor.

Wagner *et al.* teaches that it is known in the art to use universal joints for mounting sensors. In particular, Wagner *et al.* teaches that individual sensors

(reference item 48, for example) are mounted to a holder (reference item 80) using a ball-and-socket joint (reference items 96 and 98) which is a common universal joint.

With regard to claim 13 the ball-and-socket joint inherently allows the sensor's body (reference item 82, for example) to rotate about the ball's central axis. The ball, when mounted on the holder (reference item 56) of Masuo, will have a central axis that extends parallel to the pivot axis.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Masuo with the teachings of Wagner *et al.* to provide a universal joint to mount the ultrasonic sensor to the holder. Doing so would allow the sensor of Masuo to be accurately aligned with the bolt that is to be inspected.

10. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuo as applied to claim 1 above.

Masuo teaches a carrier disk (reference item 18) for supporting an ultrasonic inspection tool. Masuo does not teach a carrier formed of optically transparent material.

The choice of material for the disk does not change the functionality of the disk of Masuo. Furthermore, the applicant's claims do not provide any additional limitations that would require an optically transparent disk. See also *In re Leshin*, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).



***Allowable Subject Matter***

11. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Rogers whose telephone number is (571) 272-2205. The examiner can normally be reached on Monday - Friday (0730 - 1600).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
dar

06 September 2005

  
HEZRON WILLIAMS  
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